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ABSTRACT

Health psychologists continue to have difficulty identifying prognostic indicators of weight loss success. Psychological, social, and demographic factors have been examined, but correlations with weight loss are disappointing. Actual behaviors or quantifications of specific actions and historical measures were examined for their validity in identifying reliable predictors of weight loss success. Couples (N=23) participating in a 1-year correspondence weight reduction program in which one person in each couple enrolled to lose weight and the other agreed to act as helper completed questionnaires about body weight history and specific prior attempts at weight loss. At the end of 1 year responses were correlated with loss of absolute weight and percent body fat. Results indicated that there was little correlation between weight history and measures of body change and that the most successful reducers were those who reported the fewest past attempts and the fewest unsuccessful past attempts at weight loss. The findings suggest that actual behaviors and historical measures may be worthy of additional testing by other obesity researchers. (PAS)

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An Attempt to Shorten the Quest for Weight Loss Predictors

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An Attempt to Shorten the Quest for Weight Loss Predictors

Health psychologists continue to have difficulty identifying prognostic indicators of weight loss success. Psychological, social and demographic factors have been examined but correlations with weight loss have been disappointing. Our examination of the research literature indicates that in the few instances where significant correlations have been found, actual behaviors or quantifications of subjects' specific actions to lose weight have generally produced strong associations with subjects' weight loss performance. Conversely, we noted that historical measures which less directly evaluate personal actions for weight loss do not seem to produce significant correlations with weight loss performance. Application items from a weight loss enrollment questionnaire were organized and analyzed according to these two categories to determine if the categories had validity and might be useful in identifying reliable predictors of weight loss success.

Method

Subjects

Twenty-three couples participated in a one year, correspondence weight reduction program offered by the Stanford Heart Disease Prevention Program, Stanford School of Medicine. One person in each couple enrolled to lose weight and the other agreed to act as their "helper." The reducers included 6 men and 17 women who were between 28 and 62 years of age (M = 44.83 yrs.). The reducers initially weighed between 151 and 232 pounds (M = 186.14 lbs.) and were 36.65 to 84.25 percent overweight (M = 56.67%).

Procedure

During the program enrollment process, participants completed an application form which included questions about the reducer's clinical history. While some questions focused on the weight history of the client and the client's family members, other questions sought information about the client's past attempts

at weight loss. Based on the research literature reviewed, these questions were organized and divided into the following two categories: Body Weight History and Specific Prior Actions to Lose Weight. Client's responses to these questions were correlated with their losses of absolute weight and percent body fat at the end of the one year treatment program.

Results

Body Weight History

Table 1 presents correlations between application items pertaining to body weight history and measures of body change at the end of the one year program. Few of these co-relations reached significance.

Insert Table 1 about here

Specific Prior Actions to Lose Weight

Table 2 shows correlations between application items about specific prior actions to lose weight and weight change measures at the end of the program. Generally, these coefficients were larger and more often statistically significant than the coefficients reported in Table 1. Incidentally, application items 7 and 8 in Table 2 show that the most successful reducers in the present study were those clients who reported the fewest past attempts and the fewest unsuccessful past attempts at weight loss.

Insert Table 2 about here

Discussion

Application items about body weight history were of little value in predicting weight loss performance during the couples treatment program. Conversely, items about specific prior actions to lose weight yielded useful predictions of weight loss.

The findings suggest that the categories developed may be useful ways to organize and arrange data for analyses and that the categories are worthy of additional testing by other obesity researchers. Also, the assessment of behaviors directly related to past weight loss efforts may lead to the identification of reliable prognostic indicators of weight loss success. Fewer previous attempts at losing weight may be one of the predictors that will endure.

Table 1

Correlations Between Body Weight History and Client Performance

Application Item	Performance Measure			
	Lbs. Lost	RQ[a]	% Fat Lost	Fat RQ[b]
1. Client weight history:				
Weight during 0-5 yrs.	-.26	-.24	-.14	-.16
Weight during 6-12 yrs.	.03	.12	-.03	-.05
Weight during 13-19 yrs.	.14	.23	.13	.16
Weight after 20 yrs.	.15	.16	.14	.13
2. Mother's weight	.15	-.07	-.04	-.10
3. Father's weight	-.12	-.19	-.04	-.05
4. Sibling's weight	-.05	-.08	.06	.13
5. Spouse's weight	-.04	-.03	-.25	-.26
6. Sum of weight problems below:	-.12	-.23	-.03	-.01
Weight crept up slowly	.26	-.43*	-.26	-.31
Weight has gone up and down a great deal	.04	.05	-.08	-.01
Gained after marriage	.17	.17	.21	.30
Gained after pregnancy	-.32	-.36*	-.17	-.23
Gained during emotional problems	.23	.20	.28	.23
Gained after life-style change	-.01	-.24	-.12	-.17
Gained after job change	.01	-.14	.16	.20
Gained after physical injury	-.01	.18	.12	.21

[a] $RQ = \frac{\text{Lbs. Lost}}{\text{Initial Lbs. Overwt.}} \times 100.$

[b] $\text{Fat RQ} = \frac{\text{Fat Lost}}{\text{Initial Amt. Overfat}} \times 100.$

*$p < .05$.

Table 2

Correlations Between Specific Prior Actions to Lose Weight and Client Performance

	Application Item	Performance Measure: Lbs. Lost	RQ[a]	% Fat Lost	Fat RQ[b]
7.	Sum of responses below:	-.60**	-.63**	-.57**	-.53**
	Not succeeded in past	-.51**	-.45*	-.53**	-.50**
	Lost successfully, but regained	-.04	-.06	.13	.12
	Gave up for emotional reasons	-.26	-.31	-.20	-.17
	Tried nearly every diet	-.51**	-.42*	-.37*	-.35*
	Gave up due to lack of willpower	-.24	-.32	-.41*	-.39*
8.	Number of previous wt. loss attempts	-.55**	-.40*	-.40*	-.35*
9.	Total pounds lost in past attempts	-.40*	-.30	-.26	-.20
10.	Total pounds regained after past losses	-.01	.06	-.01	-.02
	Total net losses (Item 9-10)	-.42*	-.39*	-.28	-.25
	Sum of item 7 and 8	-.65*	-.56*	-.52**	-.47**

[a] $RQ = \frac{\text{Lbs. Lost}}{\text{Initial Lbs. Overwt.}} \times 100.$

[b] $\text{Fat RQ} = \frac{\text{Fat Lost}}{\text{Initial Amt. Overfat}} \times 100.$

*$p < .05$.

**$p < .01$.